

CLAIMS

1. (Currently Amended) Transparent substrate coated with a stack of layers comprising, in succession starting from the substrate, at least:

- a) a first layer of dielectric material,
- b) a first absorbent layer,
- c) an infrared reflective layer,
- d) a second absorbent layer,
- e) a last layer of dielectric material,

the thickness and the nature of the layers being selected such that the stack of layers would provide a 6 mm clear soda-lime glass with:

- i) a light absorption in the range of:  
between 35 and 67%, or preferably in the range of  
between 37 and 60%, or and further preferred  
between 39 and 55%, and
- ii) a reflected colour, with respect to the glass, having  
a colorimetric index  $a^*$  in the range of:  
between 0 and -10, or preferably in the range of  
between -1 and -8; and  
a colorimetric index  $b^*$  in the range of:  
between 0 and -20, or preferably in the range of  
between -1 and -15, or and further preferred  
between -1 and -10.

2. – 17. (Canceled)

18. (New) Coated substrate according to claim 1, characterized by at least one of the following features (A) through (D):

(A) at least one sacrificial layer disposed between an infrared reflective layer and a following layer of dielectric material;

(B) the material of the dielectric layers comprises one or more compounds selected from among the following: aluminium oxide ( $AlO_x$ ), aluminium nitride ( $AlN_x$ ), aluminium oxynitride ( $AlN_xO_y$ ), magnesium oxide ( $MgO_x$ ), niobium oxide ( $NbO_x$ ), silicon dioxide ( $SiO_x$ ), silicon nitride ( $SiN_x$ ), titanium dioxide ( $TiO_x$ ), bismuth oxide ( $BiO_x$ ), yttrium oxide ( $YO_x$ ), tin oxide ( $SnO_x$ ), tantalum oxide ( $TaO_x$ ), zinc oxide ( $ZnO_x$ ), zirconium oxide ( $ZrO_x$ ), zinc stannate ( $ZnSn_xO_y$ ) or zinc sulphide ( $ZnS_x$ );

(C) at least one infrared reflective layer comprises silver or an alloy of silver with other metals; and

(D) the material of the absorbent layers is either (D1) or (D2)

(D1) selected from materials having a spectral absorption index on the wavelength of 580 nm ( $k_{580}$ ) higher than 0.8, in particular higher than 1, and further preferred higher than 1.2;

(D2) selected from metals such as titanium, zirconium, stainless steel, niobium, zinc, chromium, nickel, and alloys of these metals or from metal nitrides such as titanium or zirconium nitride.

19. (New) Coated substrate according to claim 18, characterised by at least two of the features (A) through (D).

20. (New) Coated substrate according to claim 18, characterised by at least three of the features (A) through (D).

21. (New) Coated substrate according to claim 18, characterised by all of the features (A) through (D).

22. (New) Coated substrate according to claim 1, characterised by at least one of the following features (E) through (H):

(E) the light transmission of the coated substrate, when the substrate is a 6 mm clear soda-lime glass, is selected from (E1) and (E2);

- (E1) in the range of between 25 and 60%,
- (E2) in the range of between 30 and 55%;
- (F) the light reflection with respect to the layer side ( $LR_c$ ) of the coated substrate is selected from (F1), (F2) and (F3):
  - (F1) less than 30%,
  - (F2) in the range of between 8 and 25%,
  - (F3) between 10 and 20%;
- (G) the light reflection with respect to the non coated side ( $LR_v$ ) of the coated substrate is selected from (G1),(G2) and (G3):
  - (G1) lower than 30%,
  - (G2) the range of between 8 and 23%,
  - (G3) between 10 and 18%;
- (H) the total thickness of the infrared reflective layer or layers is selected from (H1), (H2) and (H3):
  - (H1) greater than 10 nm,
  - (H2) in the range of between 13 and 40 nm,
  - (H3) between 18 and 35 nm;

23. (New) Coated substrate according to claim 22 and including at least two of the features (E) through (H).

24 (New) Coated substrate according to claim 22 and including at least three of the features (E) through (H).

25. (New) Coated substrate according to claim 22 and including all of the features (E) through (H).

26. (New) Coated substrate according to claim 1, characterised in that the reflected colour, with respect to the glass, has:

a colorimetric index  $a^*$  in the range selected from one of:

between 0 and -10, or

between -1 and -8; and

a colorimetric index b\* in the range selected from one of:

between 0 and -20, or

between -1 and -15, or

between -1 and -10.

27. (New) Coated substrate according to claim 1, characterised in that it comprises at least two infrared reflective layers disposed in the stack in the following sequence, starting from the substrate:

- a) a first layer of dielectric material,
- b) a first absorbent layer,
- c) a first infrared reflective layer,
- d) an intermediate layer,
- e) a last infrared reflective layer,
- f) a last absorbent layer,
- g) a last layer of dielectric material.

28. (New) Coated substrate according to claim 27, characterised in that the intermediate layer comprises a sequence of layers as follows:

- a) a first dielectric layer,
- b) an infrared reflective layer,
- c) a second layer of dielectric material.

29. (New) Glazing comprising a coated substrate according to claim 1, characterised in that it has a solar factor selected from (I1), (I2) and (I3):

(I1) less than 35%,

(I2) less than 30%,

(I3) less than 26%.

30. (New) Glazing according to claim 31, characterised in that it has a selectivity (LT/SF) is selected from (J1) and (J2):

- (J1) higher than 1.3,
- (J2) higher than 1.5.

31. (New) Glazing according to claim 1, characterised in that the reflected colour with respect to the outside has:

a colorimetric index  $a^*$  in the range of:

between 0 and -10, or

between -1 and -8; and

a colorimetric index  $b^*$  in the range of:

between 0 and -20, or

between -1 and -15, or

between -1 and -10.

32. (New) Glazing according to claim 1, characterised in that it comprises a coated substrate with a LT comprised between 30 and 55%, a LR, with respect to the non coated side, comprised between 8 and 25% and colorimetric indexes with respect to non coated side,  $a^*$  comprised between 0 and -8 and  $b^*$  comprised between 0 and -20.